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Liverpool Observatory.

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Truro, Royal Institution of Cornwall.

Allegheny Observatory.

Amsterdam, Dutch Eclipse Committee.

Amsterdam, Royal Academy of Sciences.

Arcetri, Royal Observatory.

Australasian Association for the Advancement of Science.

Basel University.

Batavia, Natural History Society of Netherlands-India.

Batavia, Royal Magnetical and Meteorological Society.

Berlin, German Physical Society.

Berlin, Institution of Computation of the Royal Observatory.

Berlin, Royal Observatory.

Berlin, Royal Prussian Academy of Sciences.

Berne University.

Bombay Branch of the Royal Asiatic Society.

Bonn, Royal Observatory.

Bordeaux, Society of Physical and Natural Sciences.

Boston, American Academy of Arts and Sciences.

Breslau, Royal University Observatory.

Brisbane, Royal Geographical Society of Australasia.

Brussels, Belgian Astronomical Society.

Brussels, Royal Academy of Sciences of Belgium.

Buda-Pesth, Hungarian Academy of Sciences.

Buda-Pesth, Royal Hungarian Institute for Meteorology and Terrestrial Magnetism.

Calcutta, Asiatic Society of Bengal.

Canada, Department of Marine.

Canada, Geological Society.

Canada, Royal Society.

Cape of Good Hope, Royal Observatory.

Cape Town, South African Philosophical Society.

Catania, Italian Spectroscopic Society.

Catania, Royal Observatory.

Cherbourg, National Society of Sciences.

Chicago, Academy of Sciences.

Christiania, Society of Sciences.

Copenhagen, Royal Danish Academy of Sciences.

Cordoba, Argentine Meteorological Office.

Cracow, Academy of Sciences.

Egypt, Survey Department.

Geneva Observatory.

Geneva, Society of Physics and Natural History.

Georgetown College Observatory.

Göttingen, Royal Observatory.

Göttingen, Royal Society of Sciences.

Halle, Imperial Leopold-Caroline Academy.

Harvard College Astronomical Observatory.

Helsingfors, Society of Sciences of Finland.

Hobart, Royal Society of Tasmania.

Hong Kong Observatory.

India, Survey Department.

International Bureau of Weights and Measures.

Italian Meteorological Society.

Kalocsa, Haynald Observatory.

Kasan, Imperial University.

Kodaikanal Observatory.

Leipzig, Astronomical Society.

Leipzig, Royal Society of Sciences of Saxony.

Lick Observatory.

Lund, Astronomical Observatory.

Madrid Observatory.

Madrid, Royal Academy of Sciences.

Manila Observatory.

Manila, Philippine Weather Bureau.

Mauritius. Meteorological Society.

Mauritius, Royal Alfred Observatory.

Melbourne, Government Observatory.

Missouri University, Laws Observatory.

Moncalieri Observatory.

Montpellier, Academy of Sciences.

Moscow, Astronomical Observatory.

Moscow, Imperial Society of Naturalists.

Munich, Royal Bavarian Academy of Sciences.

Naples, Royal Academy of Sciences.

Natal Observatory.

New York, Columbia University Observatory.

Northfield, Minn., Carleton College Observatory.

Odessa Observatory.

O-Gyalla, Central Meteorological and Magnetical Observatory.

Ottawa, Literary and Scientific Society.

Paris, Academy of Sciences.

Paris, Astronomical Society of France.

Paris, Bureau of Longitude.

Paris, Dépôt of Marine.

Paris, International Astrophotographic Congress.

Paris, Mathematical Society of France.

Paris Observatory.

Paris, Philomathic Society.

Paris, Society of Physics.

Perth Observatory, Western Australia.

Philadelphia, American Philosophical Society.

Philadelphia, Franklin Institute.

Philadelphia, University of Pennsylvania.

Pola, Imperial Hydrographic Office.

Poona Observatory.

Potsdam, Astrophysical Observatory.

Potsdam, Central International Geodetic Bureau.

Potsdam, Royal Prussian Geodetic Institute.

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Rome, Observatory of the Roman College.

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Rome, Vatican Observatory.

San Fernando, Observatory of Marine.

San Francisco, Astronomical Society of the Pacific.

Sydney, Royal Society of New South Wales.

Tachkent Observatory.

Tacubaya, National Astronomical Observatory.

Toronto, Astronomical Society.

Toronto, Canadian Institute.

Toulouse, Academy of Sciences.

Turin, Royal Academy of Sciences.

United States Coast and Geodetic Survey.

United States Department of Agriculture.

Upsala Observatory.

Upsala, Royal Society of Sciences.

Vienna, Imperial Academy of Sciences.

Vienna, Imperial Austrian Geodetic Bureau.

Vienna, Imperial Military Geographical Institute.

Vienna, von Kuffner Observatory.

Washington, National Academy of Sciences.

Washington, Smithsonian Institution.

Washington, United States Naval Observatory.

Yerkes Observatory.

Zürich, Central Meteorological Institute of Switzerland.

Zürich Observatory.

Editors of the "American Journal of Mathematics."

Editors of the "American Journal of Science."

Editor of the "Astronomical Journal."

Editor of the "Astronomische Nachrichten."

Editors of the "Astrophysical Journal."

Editor of the "Athenæum."

Editors of the "Bulletin des Sciences Mathématiques."

Editor of the "English Mechanic."

Editor of "Himmel und Erde."

Editor of the "Illustrated Scientific News."

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## ADDRESS.

Delivered by Professor H. H. Turner, on presenting the Gold Medal of the Society to Professor Hermann Struve.

By the award of the Gold Medal to Professor Hermann Struve for his work upon the satellites of Saturn the Council have recognised by the highest means in their power the great value and importance of his contributions to our knowledge of the Saturnian system. It will be seen from the account which I now proceed to give of Professor Struve's researches that they combine in a remarkable manner great observational skill and perseverance with difficult and complicated mathematical analysis and numerical reductions. Professor Struve's earlier observations, which were made with the 15 inch refractor at Pulkowa, were published, together with the investigations derived from them, in a supplement to the Pulkowa observations in 1888.\* The later and more elaborate series of observations were made with the 30-inch refractor at Pulkowa: they were published with a very full discussion in a separate volume of the Pulkowa publications in 1898.† These two volumes contain an immense amount of material relating to Saturn's system, and also a complete account of the methods by which Professor Struve has himself derived from them so many results of the highest value During the progress of the work several papers and interest. containing the principal results as they were obtained were published in the Astronomische Nachrichten.

When Asaph Hall began to observe with the 26-inch refractor at Washington in 1875 the satellites of Saturn were some of the first objects which claimed his attention; and in the years 1875, 1876, and 1877 he made a series of observations of the differences of right ascension and declination of the planet and its most distant satellite, Iapetus. The mean distance of the satellite determined from such observations depends mainly upon the differences of right ascension; and as this mean distance is the principal factor in determining the mass of the planet, we thus obtain a calculation of this mass, which is practically free from

<sup>\*</sup> Beobachtungen der Saturnstrabanten. Erste Abtheilung. Beobachtungen am 15-zölligen Refractor. Supplément I. aux observations de Poulkova. 1888.

<sup>†</sup> Beobachtunger der Saturnstrabanten am 30-zölligen Pulkowaer Refractor. Publications de Poulkova. Série II. tom. xi.